

GENERAL

Device Description: _____

Contact Name: _____ Phone: _____

Company: _____ Address: _____

E-mail: _____ City: _____

Instructions For Completing Pre-Evaluation Checklists

You will usually need to complete **both** the "General" checklist and the specific checklist which is most applicable to your device or system type. For example, for a weighing device or weighing system the "General" checklist (which applies to all device types) and the "Scales" checklist should be completed. Both the "General" and "Watt-hour Meter" checklists should be completed and submitted with an electric watt-hour metering system application.

The exceptions are the computer software/hardware component pre-evaluation checklists which have the "General" requirements incorporated in them. Use the checklist for computer systems connected with either scales or measuring systems. Only one pre-evaluation checklist will be needed unless the software will be connected to both types of systems.

These checklists include requirements extracted from the California Code of Regulations. Though not all-encompassing, the checklists contain requirements beyond those which would apply to any single device type or accessory. It is best to think of a device type as a weighing or measuring device system or as a component of such a system whichever best describes the device(s).

When applying the requirements to your device you have three options; Check

- YES** If your device or system complies
- NO** if the device or system does not comply.
- NA** if sections appear not to apply to the device or system type(s)

If selecting "**NO**", consider if your device or system is ready for evaluation. If the deficiency is of such a nature that it will not effect the ability to test for accuracy, such as failure to conform with marking requirements or lack of provision for sealing, the evaluation can probably begin while deficiencies are being corrected.

If you are not able to conduct accuracy testing your system or device is probably not yet ready for an evaluation.

I have reviewed the enclosed specifications, tolerances, and test notes for the device type for which we have applied for evaluation and approval. To the best of my knowledge I have determined the device meets all applicable requirements.

Signed: _____

Date: _____

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G-A. Application.

G-A.1. Commercial and Law-Enforcement Equipment. - These specifications, tolerances, and other technical requirements apply as follows:

- (a) To commercial weighing and measuring equipment; that is, to weights and measures and weighing and measuring devices commercially used or employed in establishing the size, quantity, extent, area, or measurement of quantities, things, produce, or articles for distribution or consumption, purchased, offered, or submitted for sale, hire, or award, or in computing any basic charge or payment for services rendered on the basis of weight or measure.
 - (b) To any accessory attached to or used in connection with a commercial weighing or measuring device when such accessory is so designed that its operation affects the accuracy of the device.
 - (c) To weighing and measuring equipment in official use for the enforcement of law or for the collection of statistical information by government agencies.
- (These requirements should be used as a guide by the weights and measures official when, upon request, courtesy examinations of noncommercial equipment are made.)

G-A.2. Code Application. - This General Code shall apply to all classes of devices as covered in the specific codes. The specific code requirements supersede General Code requirements in all cases of conflict.

G-A.3. Special and Unclassified Equipment. - Insofar as they are clearly appropriate, the requirements and provisions of the General Code and of specific codes apply to equipment failing, by reason of special design or otherwise, to fall clearly within one of the particular equipment classes for which separate codes have been established. With respect to such equipment, code requirements and provisions shall be applied with due regard to the design, intended purpose, and conditions of use of the equipment.

G-A.4. Metric Equipment. - Employment of the weights and measures of the metric system is lawful throughout the United States. These specifications, tolerances, and other requirements shall not be understood or construed as in any way prohibiting the manufacture, sale, or use of equipment designed to give results in terms of metric units. The specific provisions of these requirements and the principles upon which the requirements are based shall be applied to metric equipment insofar as appropriate and practicable. The tolerances on metric equipment, when not specified herein, shall be equivalent to those specified for similar equipment constructed or graduated in the inch-pound system.

G-A.5. Retroactive Requirements. - "Retroactive" requirements are enforceable with respect to all equipment. Retroactive requirements are printed herein in upright Roman type.

G-A.6. Nonretroactive Requirements. - "Nonretroactive" requirements are enforceable after the effective date for:

- (a) devices manufactured within a State after the effective date;
- (b) both new and used devices brought into a State after the effective date; and
- (c) devices used in noncommercial applications which are placed into commercial use after the effective date.

Nonretroactive requirements are not enforceable with respect to devices that are in commercial service in the State as of the effective date or to new equipment in the stock of a manufacturer or a dealer in the State as of the effective date.

G-A.7. Effective Enforcement Dates of Code Requirements. - Unless otherwise specified, each new or amended code requirement shall not be subject to enforcement prior to January 1 of the year following the adoption by the National Conference on Weights and Measures and publication by the National Institute of Standards and Technology.

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	Yes	No	NA
<p>G-S. Specifications.</p> <p>G-S.1. Identification. - All equipment, except weights and separate parts necessary to the measurement process but not having any metrological effect, shall be clearly and permanently marked for the purposes of identification with the following information:</p> <p>(a) the name, initials, or trademark of the manufacturer or distributor;</p> <p>(b) a model identifier that positively identifies the pattern or design of the device;</p> <p style="padding-left: 40px;">(1) <i>The model identifier shall be prefaced by the word "Model," "Type," or "Pattern." These terms may be followed by the word "Number" or an abbreviation of that word. The abbreviation for the word "Number" shall, as a minimum, begin with the letter "N" (e.g., No or No.) The abbreviation for the word "Model" shall be "Mod" or "Mod." Prefix lettering may be initial capitals, all capitals or all lower case. [Nonretroactive as of January 1, 2003]</i></p> <p>(c) <i>a nonrepetitive serial number, except for equipment with no moving or electronic component parts and not built-for-purpose, software-based devices; [Nonretroactive as of January 1, 1968]</i></p> <p style="padding-left: 40px;">(1) <i>The serial number shall be prefaced by words and abbreviation, or a symbol, that clearly identifies the number as the required serial number; [Nonretroactive as of January 1, 1986]</i></p> <p style="padding-left: 40px;">(2) <i>Abbreviations for the word "Serial" shall, as a minimum, begin with the letter "S," and abbreviations for the word "Number" shall, as a minimum, begin with the letter "N" (e.g., S/N, SN, Ser. No, and S No). [Nonretroactive as of January 1, 2001]</i></p> <p>(d) <i>the current software version or revision identifier for not built-for-purpose, software-based devices. [Nonretroactive as of January 1, 2004]</i></p> <p style="padding-left: 40px;">(1) <i>The version or revision identifier shall be prefaced by words, an abbreviation, or a symbol, that clearly identifies the number as the required version or revision. [Nonretroactive as of January 1, 2007]</i></p> <p style="padding-left: 40px;">(2) <i>Abbreviations for the word "Version" shall, as a minimum, begin with the letter "V" and may be followed by the word "Number." Abbreviations for the word "Revision" shall, as a minimum, begin with the letter "R" and may be followed by the word "Number." The abbreviation for the word "Number" shall, as a minimum, begin with the letter "N" (e.g., No or No.). [Nonretroactive as of January 1, 2007]</i></p> <p>(e) <i>an NTEP Certificate of Conformance (CC) number or a corresponding CC Addendum Number for devices that have a CC. The CC number or a corresponding CC Addendum Number shall be prefaced by the terms "NTEP CC," "CC," or "Approval." These terms may be followed by the word "Number" or an abbreviation of that word. The abbreviation for the word "Number" shall, as a minimum, begin with the letter "N" (e.g., No or No.). [Nonretroactive as of January 1, 2003]</i></p> <p>The required information shall be so located that it is readily observable without the necessity of the disassembly of a part requiring the use of any means separate from the device.</p>			

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<p>G-S.1.1. Location of Marking Information for Not Built-For-Purpose, Software-Based Devices. – For not built-for-purpose, software-based devices either:</p> <p>(a) The required information in G-S.1 Identification. (a), (b), (d), and (e) shall be permanently marked or continuously displayed on the device; or</p> <p>(b) The Certificate of Conformance (CC) Number shall be:</p> <p style="padding-left: 20px;">(1) permanently marked on the device;</p> <p style="padding-left: 20px;">(2) continuously displayed; or</p> <p style="padding-left: 20px;">(3) accessible through an easily recognized menu and, if necessary, a submenu. Examples of menu and submenu identification include, but are not limited to, “Help,” “System Identification,” “G-S.1. Identification,” or “Weights and Measures Identification.”</p> <p>Note: For (b), clear instructions for accessing the information required in G-S.1. (a), (b), and (d) shall be listed on the CC, including information necessary to identify that the software in the device is the same type that was evaluated. [Nonretroactive as of January 1, 2004]</p>			
<p>G-S.2. Facilitation of Fraud. - All equipment and all mechanisms and devices attached thereto or used in connection therewith shall be so constructed, assembled, and installed for use such that they do not facilitate the perpetration of fraud.</p>			
<p>G-S.3. Permanence. - All equipment shall be of such materials, design, and construction as to make it probable that, under normal service conditions:</p> <p>(a) accuracy will be maintained,</p> <p>(b) operating parts will continue to function as intended, and</p> <p>(c) adjustments will remain reasonably permanent.</p> <p>Undue stresses, deflections, or distortions of parts shall not occur to the extent that accuracy or permanence is detrimentally affected.</p>			
<p>G-S.4. Interchange or Reversal of Parts. - Parts of a device that may readily be interchanged or reversed in the course of field assembly or of normal usage shall be:</p> <p>(a) so constructed that their interchange or reversal will not affect the performance of the device, or</p> <p>(b) so marked as to show their proper positions.</p>			
<p>G-S.5. Indicating and Recording Elements.</p> <p>G-S.5.1. General. - All weighing and measuring devices shall be provided with indicating or recording elements appropriate in design and adequate in amount. Primary indications and recorded representations shall be clear, definite, accurate, and easily read under any conditions of normal operation of the device.</p>			
<p>G-S.5.2. Graduations, Indications, and Recorded Representations.</p> <p>G-S.5.2.1. Analog Indication and Representation. - Graduations and a suitable indicator shall be provided in connection with indications designed to advance continuously.</p>			

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G-S.5.2.2. Digital Indication and Representation. - Digital elements shall be so designed that: (a) All digital values of like value in a system agree with one another. (b) A digital value coincides with its associated analog value to the nearest minimum graduation. (c) A digital value "rounds off" to the nearest minimum unit that can be indicated or recorded. (d) <i>A digital zero indication includes the display of a zero for all places that are displayed to the right of the decimal point and at least one place to the left. When no decimal values are displayed, a zero shall be displayed for each place of the displayed scale division.</i>			
G-S.5.2.3. Size and Character. - In any series of graduations, indications, or recorded representations, corresponding graduations and units shall be uniform in size and character. Graduations, indications, or recorded representations that are subordinate to or of a lesser value than others with which they are associated shall be appropriately portrayed or designated.			
G-S.5.2.4. Values. - If graduations, indications, or recorded representations are intended to have specific values, these shall be adequately defined by a sufficient number of figures, words, symbols, or combinations thereof, uniformly placed with reference to the graduations, indications, or recorded representations and as close thereto as practicable, but not so positioned as to interfere with the accuracy of reading.			
G-S.5.2.5. Permanence. - Graduations, indications, or recorded representations and their defining figures, words, and symbols shall be of such character that they will not tend easily to become obliterated or illegible.			
G-S.5.3. Values of Graduated Intervals or Increments. - In any series of graduations, indications, or recorded representations, the values of the graduated intervals or increments shall be uniform throughout the series.			
G-S.5.3.1. On Devices That Indicate or Record in More Than One Unit. - On devices designed to indicate or record in more than one unit of measurement, the values indicated and recorded shall be identified with an appropriate word, symbol, or abbreviation.			
G-S.5.4. Repeatability of Indications. - A device shall be capable of repeating, within prescribed tolerances, its indications and recorded representations. This requirement shall be met irrespective of repeated manipulation of any element of the device in a manner approximating normal usage (including displacement of the indicating elements to the full extent allowed by the construction of the device and repeated operation of a locking or relieving mechanism) and of the repeated performance of steps or operations that are embraced in the testing procedure.			
G-S.5.5. Money Values, Mathematical Agreement. - Any recorded money value and any digital money-value indication on a computing-type weighing or measuring device used in retail trade shall be in mathematical agreement with its associated quantity representation or indication to the nearest 1 cent of money value. This does not apply to auxiliary digital indications intended for the operator's use only, when these indications are obtained from existing analog customer indications that meet this requirement.			

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G-S.5.6. Recorded Representations. - Insofar as they are appropriate, the requirements for indicating and recording elements shall also apply to recorded representations. All recorded values shall be printed digitally.			
G-S.5.6.1. Recorded Representation of Metric Units Equipment with Limited Character Sets. - The appropriate defining symbols are shown in Table 1 (see page 8).			
G-S.5.7. Magnified Graduations and Indications. - All requirements for graduations and indications apply to a series of graduations and an indicator magnified by an optical system or as magnified and projected on a screen.			
G-S.6. Marking Operational Controls, Indications, and Features. - <i>All operational controls, indications, and features, including switches, lights, displays, push-buttons, and other means, shall be clearly and definitely identified. The use of approved pictograms or symbols shall be acceptable.</i>			
G-S.7. Lettering. - All required markings and instructions shall be distinct and easily readable and shall be of such character that they will not tend to become obliterated or illegible.			
<p>G-S.8. Provision for Sealing Electronic Adjustable Components. - <i>A device shall be designed with provision(s) for applying a security seal that must be broken, or for using other approved means of providing security (e.g., data change audit trail available at the time of inspection), before any change that detrimentally affects the metrological integrity of the device can be made to any electronic mechanism.</i></p> <p>A device may be fitted with an automatic or a semiautomatic calibration mechanism. This mechanism shall be incorporated inside the device. After sealing, neither the mechanism nor the calibration process shall facilitate fraud.</p>			
G-N. Notes.			
G-N.1. Conflict of Laws and Regulations. - If any particular provisions of these specifications, tolerances, and other requirements are found to conflict with existing State laws, or with existing regulations or local ordinances relating to health, safety, or fire prevention, the enforcement of such provisions shall be suspended until conflicting requirements can be harmonized; and such suspension shall not affect the validity or enforcement of the remaining provisions of these specifications, tolerances, and other requirements.			
G-N.2. Testing With Nonassociated Equipment. - Tests to determine conditions, such as radio frequency interference (RFI), that may adversely affect the performance of a device shall be conducted with equipment and under conditions that are usual and customary with respect to the location and use of the device.			

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	Yes	No	NA
G-T. Tolerances. G-T.1. Acceptance Tolerances. - Acceptance tolerances shall apply to: (a) equipment to be put into commercial use for the first time; (b) [NOT ADOPTED] (c) [NOT ADOPTED] (d) [NOT ADOPTED] (d) equipment undergoing type evaluation.			
G-T.2. Maintenance Tolerances. - Maintenance tolerances shall apply to equipment in actual use, except as provided in G-T.1.			
G-T.3. Application. - Tolerances "in excess" and tolerances "in deficiency" shall apply to errors in excess and to errors in deficiency, respectively. Tolerances "on overregistration" and tolerances "on underregistration" shall apply to errors in the direction of overregistration and of underregistration, respectively.			
G-T.4. For Intermediate Values. - For a capacity, indication, load, value, etc., intermediate between two capacities, indications, loads, values, etc., listed in a table of tolerances, the tolerances prescribed for the lower capacity, indication, load, value, etc., shall be applied.			

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Table 1 Representation of Units				
Name of Unit	International Symbol (common use symbol)	Representation		
		Form I	Form II	
		(double case)	(single case lower)	(single case upper)
Base SI units				
Meter	M	M	m	M
Kilogram	Kg	Kg	kg	KG
Derived SI units				
Newton	N	N	n	N
Pascal	Pa	Pa	pa	PA
Watt	W	W	w	W
Volt	V	V	v	V
degree Celsius	°C	°C	°c	°C
Other units				
liter	l or L	L	l	L
gram	g	g	g	G
metric ton	t	t	tne	TNE
bar	bar	bar	bar	BAR